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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,387	12/15/2003	Sanjay P. Godbole	39,041	6228

7590 02/07/2006

BP America Inc.
Docket Clerk, BP Legal, M.C. 5East
4101 Winfield Road
Warrenville, IL 60555

EXAMINER

SACKEY, EBENEZER O

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,387

Applicant(s)

GODBOLE ET AL.

Examiner

EBENEZER SACKY

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/20/04,08/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-7 are pending.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Information Disclosure Statement

Receipt of the Information Disclosure Statement filed on 07/20/04 and 08/18/04 respectively is acknowledged and has been entered into the file. Signed copies of the 1449 are attached herewith.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the expressions "In a process" claim 1, line 1 and "In the process" line 1 of each of claims 2-7 applies to language, which describes a previous process. It is suggested that each of the claims should start with "A process -----". Such would obviate this rejection of record.

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godbole (U.S. Patent number 6,793,776) and Rescalli et al., (U.S. Patent number 3,896,007) in view of GB Patent number 821,958 ('958').

Applicants claim a process for producing acrylonitrile and methacrylonitrile monomers from an ammoxidation reactor, comprising (1) contacting a gaseous quench effluent from a reactor column with water thereby forming an aqueous solution and subjecting the aqueous solution to a water extractive distillation and collecting nitrile monomer together with water in an overhead decanter wherein the pH of the distillation column is maintained at between 5.5 and 7.5 by adding an alkaline compounds selected from ammonium carbonate, ammonium bicarbonate, ammonium carbamate, alkylene diamines and mixtures thereof.

Determination of the scope and content of the prior art (MPEP §2141.01)

Godbole teach a process for producing acrylonitrile and methacrylonitrile monomers from an ammoxidation reactor, comprising contacting a gaseous quench effluent from a reactor column with water thereby forming an aqueous solution and subjecting the aqueous solution to a series of distillation columns and associated decanters for

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separation and purification of acrylonitrile or methacrylonitrile. See the entire reference especially column 1, lines 39-52, column 2, lines 7-15, 31-67, column 3, lines 29-51.

Rescalli et al. teach pH control during the water extractive distillation and recovery of acrylonitrile produced from ammoxidation reaction. See column 2, lines 4-19 and lines 64-67, column 3, lines 4-17.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant process and the prior art is that the instant process requires the addition of specific alkaline compounds such as ammonium carbonate to maintain the pH of the distillation column at between 5.5 and 7.5. Godbole is silent on the pH issue and does not disclose the use of ammonium carbonate.

However, Rescalli et al., teach that during the recovery of acrylonitrile from an ammoxidation reaction, it is suitable or advantageous to control the pH of the water circulating in the purification cycle at a pH of between 5.5 to 7.5. Rescalli further teach that the pH in the desired range can be effected by the addition of an alkaline additive. See column 3, lines 4-17. Additionally, GB '958' teaches that adjustment of the pH during the purification of acrylonitrile may readily be made by the addition of various alkaline materials such as ammonium carbonate etc. See page 2, column 1, lines 44-55.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2143)

Accordingly, one of ordinary skill in the art would be motivated to prepare the instant products by manipulating process parameters such as alkaline compounds with a reasonable expectation that the resulting product(s) would maintain high yield because one would expect the substitution of one alkaline compound for another, in the instance, ammonium derivatives to result in the same product.

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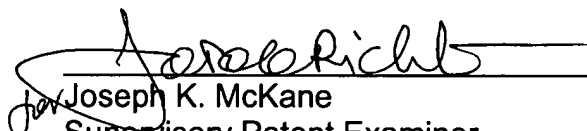
Thus, at the time of this invention, one of ordinary skill in the art in possession of Godbole and Rescalli et al., is in possession of the instant invention barring a showing of unexpected results and/or properties. The required motivation being the desire to prepare acrylonitrile and methacrylonitrile.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is

(571) 272-1600.
EOS
February 2, 2006



Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626, Group 1600
Technology Center 1